



11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 (425) 420-9200
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 (509) 924-9200
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 906-9200 FAX 906-9210
20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 (541) 383-9310 FAX 382-7588

CHAIN OF CUSTODY REPORT

Work Order #: M106016

CLIENT: Bristol		INVOICE TO: Bristol		TURNAROUND REQUEST in Business Days*				
REPORT TO: Anne Kraavatten				Organic & Inorganic Analyses				
ADDRESS: Amchitha Island, AK				10 7 5 4 3 2 1 <1				
PHONE: 770-0974 FAX: 770-0975		P.O. NUMBER: 21090		STD. Petroleum Hydrocarbon Analyses				
PROJECT NAME: Amchitha		REQUESTED ANALYSES		5 4 3 2 1 <1				
PROJECT NUMBER: 21090				STD. Please Specify				
SAMPLED BY: ARK / CRM				OTHER				
				*Turnaround Requests less than standard may incur Rush Charges.				
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PCBs	Metals		MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO ID
1. OIAMTIP07SL	6/06/01 1700	X	X		S	2		
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
RELINQUISHED BY: [Signature]		DATE: 6/6/01		RECEIVED BY: [Signature]		DATE: 6/6/01		
PRINT NAME: Charlie Marshall		FIRM: Bristol		PRINT NAME: Craig Bradke		FIRM: NCA		
RELINQUISHED BY:		DATE:		RECEIVED BY:		DATE:		
PRINT NAME:		FIRM:		PRINT NAME:		FIRM:		
ADDITIONAL REMARKS:		TEMP:		PAGE 1 OF 1				
COC REV 3/99 Please refer to SAP of List of Metals! Thank you		Spill from Baker Box						



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Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588

6 December, 2001

Anne Kranawetter
Bristol Environmental & Engineering
2000 W International Airport C#1
Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are the results of analyses for samples received by the laboratory on 06/06/01 18:07. If you have any questions concerning this report, please feel free to contact me.

This report was recreated from a previously issued final report in order to provide an electronic copy. The final report used for these electronic copies may have been previously issued as an amended report due to client requested changes to sample names, etc. No data has changed since submission of the previously issued final, or amended, report.

Sincerely,

Stephen Wilson
Environmental Group Leader

Work Orders included in this report:

M106016



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Bristol Environmental & Engineering
2000 W International Airport C#1
Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
06/09/01 19:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01AMTP07SL	M106016-01	Soil	06/06/01 17:00	06/06/01 18:07

COC # 60

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

North Creek Analytical, Inc.
Environmental Laboratory Network

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Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
06/09/01 19:50

Polychlorinated Biphenyls per EPA Method 8082
North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMTP07SL (M106016-01) Soil					Sampled: 06/06/01 Received: 06/06/01				
Aroclor 1016	ND	150	ug/kg dry	1	EPA 8082	06/07/01	06/07/01	0106023	
Aroclor 1221	ND	300	"	"	"	"	"	"	
Aroclor 1232	ND	150	"	"	"	"	"	"	
Aroclor 1242	ND	150	"	"	"	"	"	"	
Aroclor 1248	ND	150	"	"	"	"	"	"	
Aroclor 1254	ND	150	"	"	"	"	"	"	
Aroclor 1260	ND	150	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	107 %	55-130							
Surr: Decachlorobiphenyl	104 %	55-130							

North Creek Analytical - Mobile Lab

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Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
06/09/01 19:50

Total Metals per EPA 6000/7000 Series Methods
North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMTP07SL (M106016-01) Soil					Sampled: 06/06/01 Received: 06/06/01				
Arsenic	4.70	0.250	mg/kg dry	1	EPA 6020	06/07/01	06/07/01	0106021	
Cadmium	ND	0.250	"	"	"	"	"	"	
Chromium	4.47	0.250	"	"	"	"	"	"	
Lead	5.22	0.250	"	"	"	"	"	"	A-02
Selenium	0.618	0.250	"	"	"	"	"	"	A-01a
Silver	0.306	0.250	"	"	"	"	"	"	
Mercury	0.0334	0.00500	"	"	EPA 1631	06/08/01	06/09/01	0106020	

North Creek Analytical - Mobile Lab

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Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
06/09/01 19:50

Physical Parameters per APHA/ASTM/EPA Methods
North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMTP07SL (M106016-01) Soil					Sampled: 06/06/01 Received: 06/06/01				
% Solids	73.9	0.0100 % by Weight	1		Gravimetric	06/07/01	06/08/01	0106024	

North Creek Analytical - Mobile Lab

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Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
06/09/01 19:50

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0106023 - 3545 ASE

Blank (0106023-BLK1)

Prepared & Analyzed: 06/07/01

Aroclor 1016	ND	167	ug/kg wet
Aroclor 1221	ND	334	"
Aroclor 1232	ND	167	"
Aroclor 1242	ND	167	"
Aroclor 1248	ND	167	"
Aroclor 1254	ND	167	"
Aroclor 1260	ND	167	"

Surr: 2,4,5,6-Tetrachloro-m-xylene	81.1	"	66.7	122	55-130
Surr: Decachlorobiphenyl	80.4	"	66.7	121	55-130

LCS (0106023-BS1)

Prepared & Analyzed: 06/07/01

Aroclor 1254	737	167	ug/kg wet	667	110	55-130
Surr: 2,4,5,6-Tetrachloro-m-xylene	84.0		"	66.7	126	55-130
Surr: Decachlorobiphenyl	78.8		"	66.7	118	55-130

Matrix Spike (0106023-MS1)

Source: M106016-01

Prepared & Analyzed: 06/07/01

Aroclor 1254	1340	233	ug/kg dry	1260	ND	106	55-130
<i>Surr: 2,4,5,6-Tetrachloro-m-xylene</i>	<i>155</i>		<i>"</i>	<i>126</i>		<i>123</i>	<i>55-130</i>
<i>Surr: Decachlorobiphenyl</i>	<i>146</i>		<i>"</i>	<i>126</i>		<i>116</i>	<i>55-130</i>

Matrix Spike Dup (0106023-MSD1)

Source: M106016-01

Prepared & Analyzed: 06/07/01

A-01

Aroclor 1254	672	247	ug/kg dry	1330	ND	50.5	55-130	66.4	40
Surr: 2,4,5,6-Tetrachloro-m-xylene	72.9		"	133		54.8	55-130		
Surr: Decachlorobiphenyl	65.4		"	133		49.2	55-130		

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Bristol Environmental & Engineering
2000 W International Airport C#1
Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
06/09/01 19:50

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 0106020 - EPA 1631

Blank (0106020-BLK1)

Prepared: 06/08/01 Analyzed: 06/09/01

Mercury ND 0.00500 mg/kg wet

LCS (0106020-BS1)

Prepared: 06/08/01 Analyzed: 06/09/01

Mercury 0.0101 0.00500 mg/kg wet 0.0100 101 85-115

Duplicate (0106020-DUP1)

Source: M106016-01

Prepared: 06/08/01 Analyzed: 06/09/01

Mercury 0.0345 0.00500 mg/kg dry 0.0334 3.24 20

Matrix Spike (0106020-MS1)

Source: M106016-01

Prepared: 06/08/01 Analyzed: 06/09/01

Mercury 0.0521 0.00500 mg/kg dry 0.0135 0.0334 139 75-125 Q-02

Batch 0106021 - EPA 3050

Blank (0106021-BLK1)

Prepared & Analyzed: 06/07/01

Arsenic ND 0.250 mg/kg wet
Cadmium ND 0.250 "
Chromium ND 0.250 "
Lead ND 0.250 "
Selenium ND 0.250 "
Silver ND 0.250 "

LCS (0106021-BS1)

Prepared & Analyzed: 06/07/01

Arsenic 19.5 0.250 mg/kg wet 20.0 97.5 80-120
Cadmium 20.0 0.250 " 20.0 100 80-120
Chromium 17.5 0.250 " 20.0 87.5 80-120
Lead 16.8 0.250 " 20.0 84.0 80-120 A-02a
Selenium 18.8 0.250 " 20.0 94.0 80-120 A-01a
Silver 20.1 0.250 " 20.0 101 80-120

North Creek Analytical - Mobile Lab

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Project: Amchitka
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Project Manager: Anne Kranawetter

Reported:
06/09/01 19:50

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0106021 - EPA 3050

Duplicate (0106021-DUP1)

Source: M106016-01

Prepared & Analyzed: 06/07/01

Arsenic	4.49	0.250	mg/kg dry		4.70			4.57	40	
Cadmium	ND	0.250	"		ND				40	
Chromium	4.17	0.250	"		4.47			6.94	40	
Lead	5.25	0.250	"		5.22			0.573	40	A-02a
Selenium	0.541	0.250	"		0.618			13.3	40	A-01a
Silver	ND	0.250	"		0.306			91.4	40	

Matrix Spike (0106021-MS1)

Source: M106016-01

Prepared & Analyzed: 06/07/01

Arsenic	31.7	1.68	mg/kg dry	27.1	4.70	99.6	75-125			
Cadmium	26.4	1.68	"	27.1	ND	97.4	75-125			
Chromium	31.1	0.250	"	27.1	4.47	98.3	75-125			
Lead	24.2	0.250	"	27.1	5.22	70.0	75-125			A-02
Selenium	26.2	1.68	"	27.1	ND	94.4	75-125			A-01a
Silver	25.9	1.68	"	27.1	ND	94.4	75-125			

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Reported:
06/09/01 19:50

Notes and Definitions

A-01 QC sample had low recoveries for spikes due to automated solvent extractor cell leak during extraction. Review of associated QC data does not indicate an out of control situation and client sample data has not been compromised.

A-01a The post-run calibration verification standard was high at 111% (90-110).

A-02 The post-run calibration verification standard was low at 84.9% (90-110).

A-02a The post-run calibration verification standard was low at 88.49% (90-110).

Q-02 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.

Q-06 Analyses are not controlled on RPD values from sample concentrations less than 5 times the reporting limit.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.

wet Sample results reported on a wet weight basis (as received)

RPD Relative Percent Difference

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Environmental Laboratory Network

8 of 8

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Report recreated from: \\sisters\elmnt\Report\M106016 FINAL 06 09 01 1950.mdb Default Report (not modified)
0106020-MS1	Hg Total CVAF 1631	Mercury	Q-02
0106020-MS1	Hg Total CVAF 1631	Mercury	Exceeds upper control limit
0106021-BS1	Pb Total ICPMS 6020	Lead	A-02a
0106021-BS1	Se Total ICPMS 6020	Selenium	A-01a
0106021-DUP1	Ag Total ICPMS 6020	Silver	Exceeds RPD limit
0106021-DUP1	Ag Total ICPMS 6020		Q-06
0106021-DUP1	Pb Total ICPMS 6020	Lead	A-02a
0106021-DUP1	Se Total ICPMS 6020	Selenium	A-01a
0106021-MS1	Pb Total ICPMS 6020		Q-02
0106021-MS1	Pb Total ICPMS 6020	Lead	A-02
0106021-MS1	Pb Total ICPMS 6020	Lead	Exceeds lower control limit
0106021-MS1	Se Total ICPMS 6020	Selenium	A-01a
0106023-MSD1	8082 PCB	2,4,5,6-Tetrachloro-m-xylene	Exceeds lower control limit
0106023-MSD1	8082 PCB		A-01
0106023-MSD1	8082 PCB	Aroclor 1254	Exceeds RPD limit
0106023-MSD1	8082 PCB	Decachlorobiphenyl	Exceeds lower control limit
0106023-MSD1	8082 PCB	Aroclor 1254	Exceeds lower control limit
M106016-01	Ag Total ICPMS 6020		Q-06
M106016-01	Pb Total ICPMS 6020	Lead	A-02
M106016-01	Se Total ICPMS 6020	Selenium	A-01a